

Abstract

The design of a shell of a hearing instrument can be optimized by representing it as a virtual object. A digital representation of the ear and the ear canal of the user is obtained used to generate a shell that will precisely fit  
5 in the space. Remaining in the virtual domain, the various components and features can be placed and the size, configuration, and dimensions of the shell can then be optimized for performance, fit, and comfort, yet also minimized for aesthetic reasons.